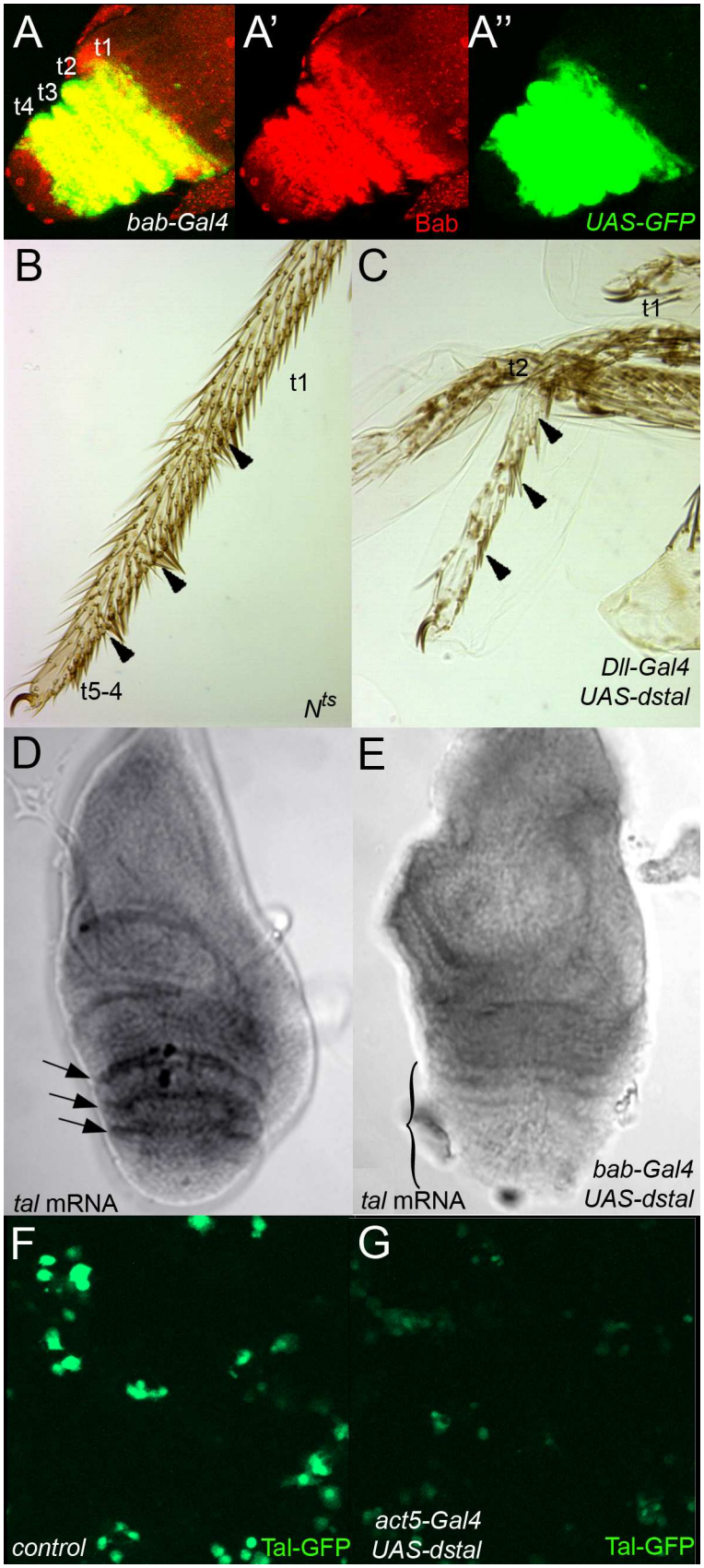
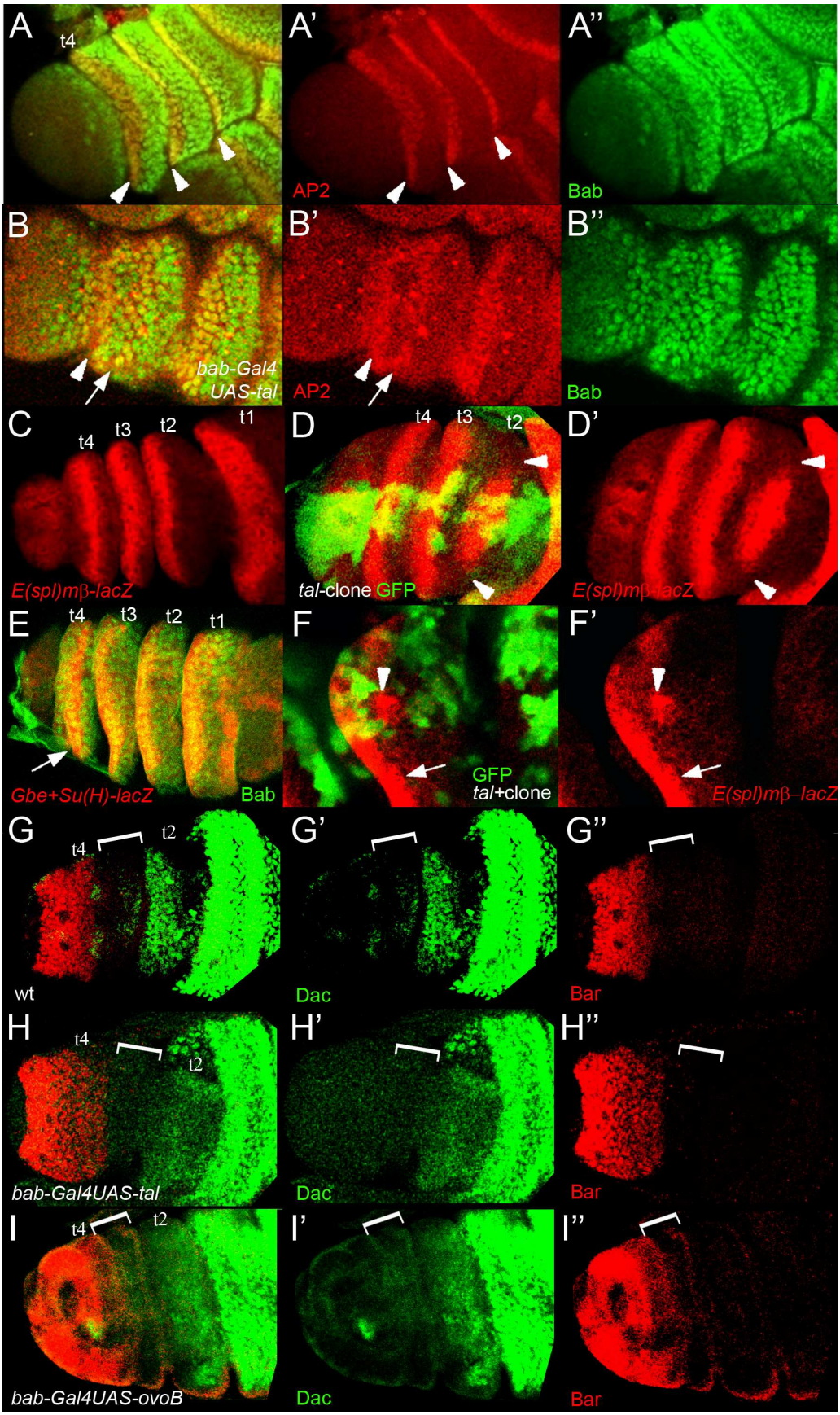
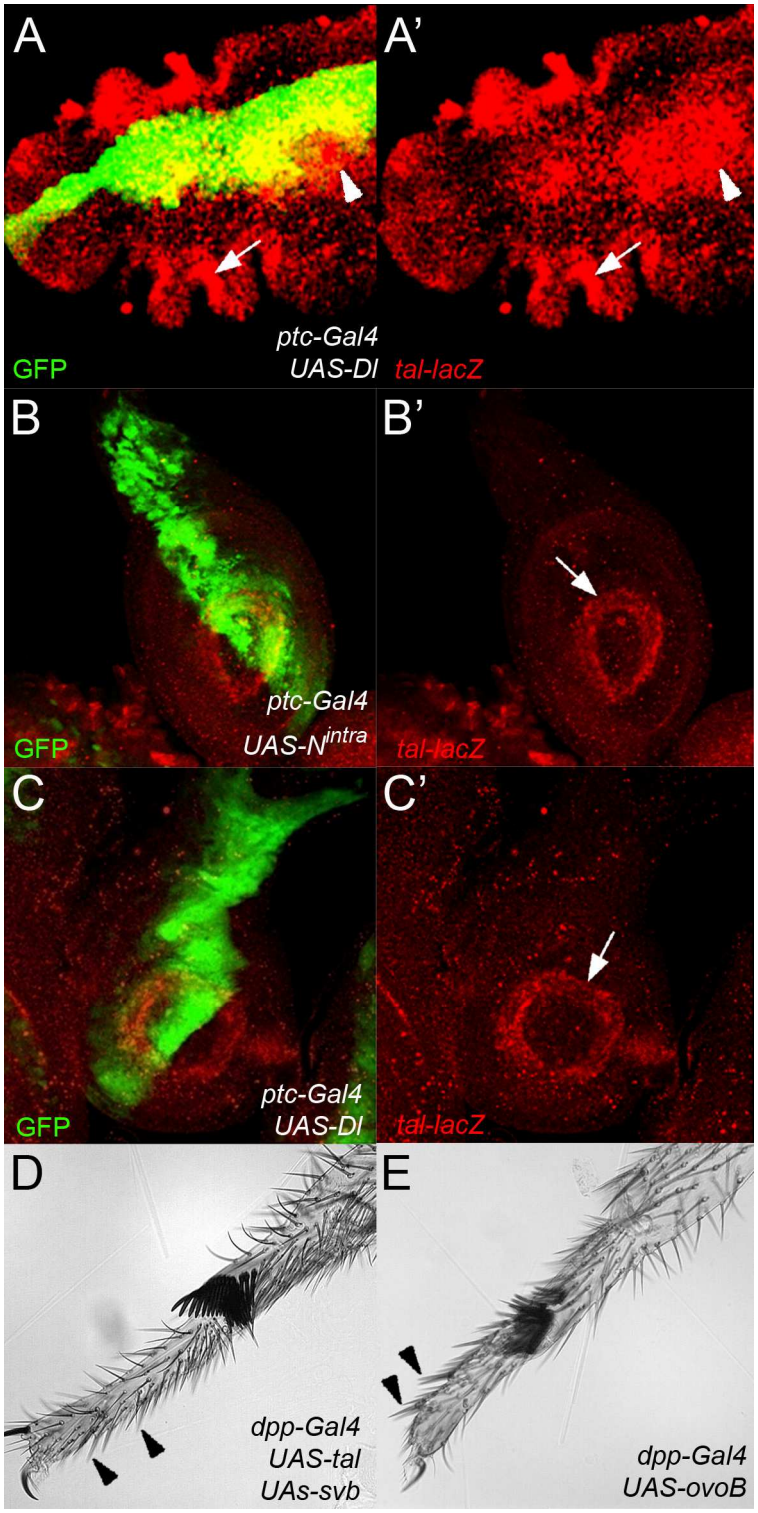

A
t1
t2
t3
t4
bab-Gal4
A'
Bab
A''
UAS-GFP
B
t1
t5-4
Nts
C
t1
t2
Dll-Gal4
UAS-dstal
D
tal mRNA
E
tal mRNA
bab-Gal4
UAS-dstal
F
control
Tal-GFP
G
act5-Gal4
UAS-dstal
Tal-GFP

SUPPLEMENTARY FIGURE 1


A
t4
A'
AP2
A''
Bab
B
bab-Gal4
UAS-tal
B'
AP2
B''
Bab
C
t4
t3
t2
t1
E(spl)mβ-lacZ
D
t4
t3
t2
tal-clone GFP
D'
E(spl)mβ-lacZ
E
t4
t3
t2
t1
Gbe+Su(H)-lacZ
Bab
F
GFP
tal+clone
F'
E(spl)mβ–lacZ
G
t4
t2
wt
G'
Dac
G''
Bar
H
t4
t2
bab-Gal4UAS-tal
H'
Dac
H''
Bar
I
t4
t2
bab-Gal4UAS-ovoB
I'
Dac
I''
Bar

SUPPLEMENTARY FIGURE 2



SUPPLEMENTARY FIGURE 3

Table 1. Quantification of svb^{R9} clones in the distal part of the leg.

Leg segments	total n# clones	n# clones through joint	n# clones with joint phenotype
Tibia	74	53 (Tb➔t1)	0
Tarsus1➔tarsus5	79	40[a]	11[b]

We have screened a total of 60 adult legs containing svb^{R9} clones. The svb^{R9}clones have been labeled with *yellow*. In the tibia approximately 72% of the clones crossed the joint (Tb➔t1) without affecting joint structures. In the tarsal segments less than 50% of the clones passed through the joint and from those more than 25% showed lack of joints and tarsal fusions.

[a]Note that in the tarsus the proportion of joint vs non-joint territories is much higher than in the tibia (tarsus contain four joints vs Tb has only one). Therefore a higher percentage of svb^{R9} clones passing through joints than in the tibia should be expected. These smaller number of svb^{R9} clones through joints in the tarsus suggest that a considerable number *svb* mutant cells may die or avoid these structures. Interestingly, svb^{R9} clones that develop joint structures are only one row of bristles wide.

[b]These clones contain at least ≥ 2 rows of *yellow* bristles.

Table 2. Quantification of ectopic joint structures induced by over-expression of *tal* in the tarsus.

Flies	legs	Ectopic joint structures	Ectopic joint/fly
14	82	81	5.8

Over-expression of *tal* using *bab-Gal4* driver produce ectopic joint structures such as invaginations of thick cuticle without bristles. These ectopic joint structures appear in the distal part of the tarsal segment just proximal to the endogenous joint.